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EXAMINER

MAHMOUDI, HASSAN

ART UNIT

PAPER NUMBER

2165

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/495,799	GILMORE ET AL.	
	Examiner	Art Unit	
	Tony Mahmoudi	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's Request for Continued Examination (RCE) submission filed on 18-May-2006 has been entered. Accordingly, the "After Final" amendment filed on 22-June-2005 has been entered for the continued examination of this application.

Priority

2. The instant application claims priority to the U.S. Provisional Application S/N 60/173,979, filed on 30-December-1999. Accordingly, the filing date of the Provisional Patent Application (30-December-1999) is considered the effective filing date for the examination of the instant application.

Remarks

3. In response to communications filed on 22-June-2005, claim 1 is amended, and new claim 23 is added per applicant's request. Therefore, claims 1-23 are presently pending in the application, of which, claims 1, 11 and 23 are presented in independent form.

Drawings

4. The Formal Drawings submitted on 17-november-2003 are objected to as failing to comply with 37 CFR 1.84(p)(4) because:

At least one reference character has been used to designate multiple entities in the drawings. For example, reference character "220" has been used to designate both **PUSHWEB** and **ABSENT** in figure 2. The above is an example of multiple entities having been designated by the same reference character. The applicant is requested to review and correct all sheets of the drawings as appropriate.

5. The Formal Drawings submitted on 17-november-2003 are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include at least one reference character **not** mentioned in the description. For example:

Reference character **231** (**WEB REQUEST**) in figure 2.

The above are examples of reference characters not mentioned in the descriptions. The applicant is requested to review and correct all sheets of drawings as appropriate.

6. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the

appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specifications

7. The specification of the instant application is objected to in view of the objections made above to the drawings. The specification must correctly and sufficiently reference every element shown on the drawing figures. Wherever there is a discrepancy between an element depicted in the drawings and references made to the element in the specification (or lack thereof), either the figures of drawings, or the specifications, or both must be corrected to overcome the discrepancy. Appropriate corrections to the specifications are required.
8. The disclosure is further objected to because it contains several embedded hyperlinks and/or other forms of browser-executable code (on pages 11, 12, 14, 15 and 17). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Objections

9. Claim 23 is objected to because of the following informalities:

Claim 23 recites “fire wall” in lines 1 and 4. To be consistent with this recitation in all claims, the above recitations need to be changed to --firewall--.

In line 5, “a said user” needs to be changed to either --a user--, or --said user--.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 (and its dependent claims) and claim 23 recite the limitation “through which said proxy ***can forward*** requests to said client to said second proxy”, which renders the above “***method***” claims indefinite. The limitation “***can forward***” implies “configuration” or “system ability” (for example, “the first proxy is configured to forward requests”), which is acceptable for a “system” or an “apparatus” claim. However, in a “method” claim, functional limitations need to be definitive. It is not clear from the above claims as to

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whether or not the limitation of “forwarding” (the requests) is necessarily a required functional part of the claims. This rejection can be overcome by amending the independent claims to recite the above limitations in a definitive form (e.g., “through which said proxy *forwards* requests to said client to said second proxy”.)

Appropriate correction is required.

Claim 11 (and its dependent claims) recite the limitation, “parsing the resource for hyperlinks”, which renders the claim indefinite. In the Examiner’s interpretations, the specification of the instant application attempts to equate a “resource” with a “document”. However, this equation is not clearly stated. The specification states:

“[w]here the returned resource *contains* document hyperlinks” (page 3, lines 47-48); and

“the document is parsed to identify all links on the page” (page 15, line 307.)

The Examiner interprets the “resource” in the above excerpt of the specification to also mean any of a database, a server, a computer, etc., which documents (containing hyperlinks) can be stored on and/or retrieved from. Therefore, the “resource” recited in claim 11 is not necessarily limited to a document or a file, containing hyperlinks.

In view of the description provided in the specification and the Examiner’s interpretation of the term “resource” in claim 11, although a document can be parsed, the Examiner cannot establish how a resource other than a document (a database, a server, or a computer) can be

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“parsed” for hyperlinks. This rejection can be overcome by amending claim 11 to recite a definitive equation of a resource being a document. For example, claim 11 can be amended to recite, “A method of providing a client access to a *document* resource, stored behind a firewall.”

Claim 23 further recites “said client” in line 11. There is insufficient antecedent bases for this limitation in the claim. To overcome this rejection, claim 23 needs to be amended to recite --said user-- instead of “said client”.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claim 1 (and its dependent claims) are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent claim 1 produces results that are not considered tangible. Claim 1 is a “method” claim comprising the steps of, “receiving” and “sending” connection requests; “authenticating” a client; and “establishing a data connection” through which requests can be forwarded between a first and a second proxy. The results are not communicated to the user

(client). Neither is an indication of any such results stored anywhere in memory. Therefore, the results are not tangible. This rejection can be overcome by amending the claim to recite a tangible result, for example, “transmitting the results to the user/client”, similar to the recitations in independent claims 11 and 23.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. Claims 1-2, 6, 8-10, 14-15, and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,754,831 B2, hereinafter referred to as **Brownell**.

As to claim 1, **Brownell** teaches a method of providing access (see column 4, lines 30-31) to a server inside a firewall (see figure 3; see column 13, lines 30-34) having an IP address (see column 7, lines 61-63) comprising the steps of:

receiving at a first proxy outside the firewall (see figure 3, where “a proxy” is read on “socket 367”, shown outside the firewall) a connection request from a client (see column 9,

lines 32-42) that is also outside the firewall (see figure 3; where the client [“user 360”] is also outside the firewall), said first proxy having an IP address that is different from the IP address of the firewall (see column 7, lines 61-63, where “different IP addresses” is read on “each associated with a network address such as an Internet Protocol [‘IP’] address”);

sending said connection request through said firewall, over a control channel (see figure 3; “inside channel 343”) previously established by a second proxy inside the firewall (see figure 3, where “a second proxy” is depicted inside the firewall as “Tunnel 341”, connecting to the Internal Hosts; and see column 8, lines 54-57 and column 9, lines 8-18); and

authenticating the client (see column 4, lines 33-36; and see column 8, lines 42-51; and see column.)

said second proxy authenticating the client (see column 9, lines 8-18, where “second proxy” is read on “Tunnel 341”); and

said second proxy establishing a data connection with the first proxy, through the firewall (see figure 3; the connection through the firewall between the first proxy “socket 367” and the second proxy “Tunnel 341”), through which the first proxy can forward requests of the client to the second proxy (see column 15, lines 37-47; and see column 18, lines 40-48.)

As to claim 2, **Brownell** teaches the method further comprising the step of receiving a requested resource at the second proxy from the server inside the firewall and using the established connection between the second proxy and the client to forward the requested resource to the client (see figure 3; and see column 17, lines 17-21.)

As to claim 6, **Brownell** teaches wherein the data connection (see column 4, lines 41-46, where “data connection” is read on “a two-way data communication”; and see column 7, lines 9-12) uses a secure communication protocol (see column 10, lines 22-34; and see column 11, lines 6-52.)

As to claim 8, **Brownell** teaches wherein the client is a browser (see column 7, lines 65-67) and the server is a Web server (see column 17, lines 56-69.)

As to claim 9, **Brownell** teaches wherein the client is authenticated using a password mechanism (see column 10, lines 57-64, where “password” is read on “passphrase”).

As to claim 10, **Brownell** teaches wherein the client is authenticated using a onetime password mechanism (see column 10, line 65 through column 11, line 5, where “one time password mechanism” is read on “challenge/response authentication”).

As to claim 14, **Brownell** teaches the method further comprising the step of receiving at the second proxy, in response to the request for a resource from the second proxy, the requested resource from the server inside the and using the established connection between the second proxy and the client to forward the requested resource to the client (see figure 3; and see column 17, lines 17-21.)

As to claim 15, **Brownell** teaches the method further comprising the step of receiving from the first proxy, at the second proxy, a request for a resource of the server (see column 9, lines 43-53; and see column 15, lines 52-60.)

As to claim 17, **Brownell** teaches wherein the client is authenticated via said control channel (see column 10, lines 32-34, where “control channel” is read on “login channel”) using a password mechanism (see column 10, lines 57-64, where “password” is read on “passphrase”).)

As to claim 18, **Brownell** teaches wherein the control channel is maintained by sending a command that requests a response, over the control channel, at intervals that insure a silent period of no more than a pre-selected value (see column 11, line 53 through column 12, line 7, where “intervals that ensure a silent period” is read on “laps of a period of time in which there is no connection associated with an active session”).)

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that said subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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17. Claims 3-5, 7, 11-12, 16, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Brownell** in view of **Smith et al** (U.S. Patent No. 6,578,078 B1, hereinafter referred to as **Smith**.)

As to claim 3, **Brownell** does not *explicitly* teach wherein the resource is a document containing hyperlinks to other resources (although he teaches displaying “web pages” in column 7, lines 64-67, which contain hyperlinks to other documents.)

However, **Smith** teaches a method of preserving referential integrity within web sites (see column 10, lines 9-24), in which he teaches the resource is a document containing hyperlinks to other resources (see figure 8; and see column 10, line 25 through column 11, line 13.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** by the teaching of **Smith**, because including document containing hyperlinks to other resources would enable the user to browse/view other documents referenced in the resource (main document) without knowing (or having to manually type in) the URL address of the referenced documents. **Smith** teaches reaching nested pages of a travel category by “clicking on the picture icon or one of the text blocks, both of which are associated with one of the hyperlinks” (see column 10, lines 42-47.)

As to claim 4, **Brownell** as modified, teaches a second proxy (see **Brownell**, figure 3; Tunnel 341.)

Brownell as modified still does not teach translating the hyperlinks in the document into references.

Smith further teaches translating the hyperlinks in the document into references (see column 13, lines 30-50, where “translating the hyperlinks into references” is read on “updating the hyperlink to the new URL”; and see column 15, lines 27-34 and column 18, lines 18-39.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** as modified, by the further teaching of **Smith**, because translating the hyperlinks in the document into references, would enable the system to redirect the user to the correct web pages in cases that the address of the desired page has changed or if the desired document is moved to another server. **Smith** teaches, “a decision block 54 determines if the URL has been redirected. In addition to the URL stub file, there is additional redirection information that is part of the database, as discussed below. If the URL has been redirected, then the web site server sends the referring server a message that includes the new URL for the link so that the hyperlinks on the referring server may be updated in a block 56” (see column 15, lines 22-34.)

As to claim 5, **Brownell** as modified teaches wherein the document is a Web page (see **Brownell**, column 7, lines 64-67; and see **Smith** column 10, lines 9-24, and see “homepage 300” in column 10, line 42.)

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As to claim 7, **Brownell** as modified, teaches wherein the secure communication protocol is SSL (see **Brownell**, column 10, lines 22-34; and see column 11, lines 6-52.)

As to claim 11, **Brownell** teaches a method of providing a client access (see Abstract) to a resource stored behind a firewall (see figure 3, where “resource” resides on the internal host which is behind the firewall; and see column 13, lines 30-34) comprising:

a proxy enabled to access resources behind the firewall (see figure 3, where “proxy” is read on “Tunnel 341); and

transmitting the resource to the client (see figure 3; see column 16, lines 49-52; and see column 17, lines 17-21.)

Brownell does not explicitly teach:

parsing the resource for hyperlinks to other resources;

rewriting the hyperlinks to point to a proxy enabled to access resources; and

transmitting the resource with the re-written hyperlink.

However, **Smith** teaches a method of preserving referential integrity within web sites (see column 10, lines 9-24), in which he teaches parsing the resource for hyperlinks to other resources (see column 11, lines 48-63 and see column 17, lines 10-20); rewriting the hyperlinks to point to a proxy enabled to access resources (see column 12, lines 57-67, where “rewriting” is read on “updating”; see also column 14, lines 8-17 and column 15, lines 15-22); and transmitting the resource with the re-written hyperlink (see column 13, lines 30-50; and see column 15, lines 23-51.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** by the teachings of **Smith**, because including the above would enable the user to obtain the desired resource (document) even in the event that the location of the desired document has been changed. The “re-directing” of URLs ensure appropriate search results to the users and while it can remain transparent to the user, it can also serve as means to alert the users that the location of their desired document has been changed. As taught by **Smith**, depending on the types of redirection (rewriting or updating) of the URLs, “The redirection page contains a URL stub file that automatically redirects the browser to the new URL, without requiring the user to perform any steps. Optionally, the stub file can cause the browser to display a message indicating that “This page has been moved,” along with updating the hyperlink to the new URL. The message can be displayed for a predetermined period of time before loading the page from the new location referenced by the updated URL. In the case of automatic redirection, a user accessing the document on the web site will be unaware that the URL has changed, except that the new URL will replace the previous URL on the location bar in the browser as the new location is being accessed to load the document” (column 13, lines 37-50.)

As to claim 12, **Brownell** as modified teaches wherein the resource is a Web page (see **Brownell**, column 7, lines 64-67; and see **Smith** column 10, lines 9-24, and see “homepage 300” in column 10, line 42.)

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As to claim 16, **Brownell** does not explicitly teach:

wherein the connection request comprises a URL;

translating the URL to a URL that corresponds to a URL of a server inside the firewall;

and

establishing a connection with the URL.

Smith teaches wherein the connection request comprises a URL (see column 11, lines 48-63 and see column 12, lines 36-47); translating the URL to a URL that corresponds to a URL of a server inside the firewall (see column 13, lines 30-50, where “translating the URL” is read on “updating the hyperlink to the new URL”; and see column 15, lines 27-34 and column 18, lines 18-39); and establishing a connection with said URL (see column 12, lines 47-56; the connection is made when the user clicks on the new URL.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** as modified, by the teachings of **Smith**, because including wherein the connection request comprises a URL; translating the URL to a URL that corresponds to a URL of a server inside the firewall; and establishing a connection with the URL, would enable the user to retrieve a desired web page or document by redirecting the user to the correct web pages in cases that the address of the desired page has changed or if the desired document is moved to another server. **Smith** teaches, “a decision block 54 determines if the URL has been redirected. In addition to the URL stub file, there is additional redirection information that is part of the database, as discussed below. If the URL has been redirected, then the web site server sends the referring server a

message that includes the new URL for the link so that the hyperlinks on the referring server may be updated in a block 56" (see column 15, lines 22-34.)

As to claim 23, **Brownell** teaches a method (see column 5, lines 40-51 and see figure 3) of a user (figure 3, "user" 360) at a host on an outside side (figure 3, "external host" 350) of a firewall (figure 3, "firewall" 330) obtaining web pages (see column 7, lines 64-67) from a server on an inside side of said firewall (figure 3, "internal hosts" 310 and 312) comprising the steps of:

receiving at a first proxy outside the firewall (see figure 3, where "a proxy" is read on "socket 367", shown outside the firewall) that is adapted to serve as an interface (see figure 3, where socket 367 is connected [interfaces]) between servers of said inside side (see figure 3, "internal hosts" 310 and 312) of said firewall (see figure 3, "firewall" 330) and hosts on said outside side of said firewall (see figure 3, "external host" 350) a connection request from said user (see column 9, lines 32-42) employing a secure communication protocol (see figure 3; where the "firewall" 330 secures the communication; and see column 10, lines 22-34 in view of figure 4);

sending said connection request through said firewall, over a control channel (see figure 3; "inside channel 343") previously established by a second proxy on said inside side of said firewall (see figure 3, where "a second proxy" is depicted inside the firewall as "Tunnel 341", connecting to the Internal Hosts; and see column 8, lines 54-57 and column 9, lines 8-18); and

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authenticating the client (see column 4, lines 33-36; and see column 8, lines 42-51; and see column .)

said second proxy authenticating the user (see column 9, lines 8-18, where “second proxy” is read on “Tunnel 341”); and

said second proxy establishing a data connection with said first proxy, through said firewall (see figure 3; the connection through the firewall between the first proxy “socket 367” and the second proxy “Tunnel 341”), through which the first proxy can forward requests of said user to said second proxy (see column 15, lines 37-47; and see column 18, lines 40-48.)

Brownell does not explicitly teach said user obtaining web pages from said server by directing requests to IP address of said first proxy.

However, **Smith** teaches a method of preserving referential integrity within web sites (see column 10, lines 9-24), in which he teaches said user obtaining web pages from said server (see column 8, lines 12-18) by directing requests to IP address of said first proxy (see column 14, line 48 through column 15, line 14.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** by the teaching of **Smith**, because including said user obtaining web pages from said server by directing requests to IP address of said first proxy would enable the user to expand his secured searching capabilities by accessing and retrieving documents and pages on the Internet by directing an http request to an IP address of a proxy that is securely connected to the servers inside firewalls.

18. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Brownell** in view of **Smith**, as applied to claim 11 above, and further in view of **Flynn et al** (U.S. Patent No. 6,567,918 B1, hereinafter referred to as **Flynn**.)

As to claim 13, **Brownell** as modified teaches rewritten hyperlinks (see **Smith**, column 12, lines 57-67, where “rewriting” is read on “updating”; see also column 14, lines 8-17 and column 15, lines 15-22.)

Brownell as modified, still does not explicitly teach wherein the rewritten hyperlinks also comprise security information.

Flynn teaches a method of security for saved web pages (see column 4, lines 64-66), in which he teaches wherein the rewritten hyperlinks also comprise security information (see column 3, lines 37-57; and see column 11, lines 18-40.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** as modified, by the teaching of **Flynn**, because including wherein the rewritten hyperlinks also comprise security information, would enable the system to “re-establish a security context for the saved Web page”, as taught by **Flynn** (column 11, lines 18-40.) For example, if a web page or document is stored with high security due to contents, etc., and later, the page or document is reclassified based on its revised contents, and moved to a server requiring lower security, the re-direction of its URL would contain the lower security information, pointing the user to the server on which the page or document is now stored (or vice versa.)

19. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Brownell** in view of **Smith**, as applied to claim 1 above, and further in view of **Crichton et al** (U.S. patent No. 6,104,716, hereinafter referred to as **Crichton**.)

As to claim 19, **Brownell** does not teach wherein the control channel is adapted to carry a limited number of different messages.

Crichton teaches a secured communication tunneling (see column 2, lines 19-22) in which he teaches wherein the control channel is adapted to carry a limited number of different messages (see column 6, line 40 through column 8, line 52.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** by the teachings of **Crichton**, because including wherein the control channel is adapted to carry a limited number of different messages, would define the rules of communications between the internal and external proxies associated with a firewall and would enable the system to perform document access and retrievals from servers secured by firewalls (see **Crichton**, column 6, lines 39-47.)

As to claim 20, **Brownell** does not teach wherein the control channel is adapted to carry messages from a set that consists of:

- a message sent by the second proxy to establish the control channel,
- a message sent by the first proxy to request establishment of the data connection,
- a hailing message that expects a reply, and

a reply message that acknowledges the hailing message.

Crichton teaches:

a message sent by the second proxy to establish the control channel (see column 6, line 63 through column 7, line 5), a message sent by the first proxy to request establishment of the data connection (see column 7, lines 6-9), a hailing message that expects a reply (see column 7, lines 10-28), and a reply message that acknowledges the hailing message (see column 7, lines 29-34.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** by the teachings of **Crichton**, because doing so would ensure establishing a secured connection and the notification that the connection has been successfully made between the user and the internal host, so that the user can attempt to retrieve desired documents from the secured internal host.

As to claim 21, **Brownell** does not teach the step of establishing the data connection being followed by a step of the second proxy sending a message to the first proxy, over the data connection, to inform the first proxy of the establishment of the data connection.

Crichton teaches the step of establishing the data connection being followed by a step of the second proxy sending a message to the first proxy, over the data connection, to inform the first proxy of the establishment of the data connection (see column 7, lines 10-14, and see column 8, lines 24-52.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** by the teachings of **Crichton**,

because doing so would notify the user associated with the first proxy to know that a successful and secure connection is in place so that the user can begin retrieving/accessing the desired web pages and/or documents from the host.

As to claim 22, **Brownell** does not teach wherein the control channel is maintained by periodically one of the proxies sending a command that requests a response from the other one of the proxies.

Crichton teaches wherein the control channel is maintained by periodically one of the proxies sending a command that requests a response from the other one of the proxies (see column 6, line 62 through column 7, line 9 and see column 7, lines 10-19.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified **Brownell** by the teachings of **Crichton**, because by maintaining the control channel, the communication link stays “alive”, during which time, the user has continuous access to the internal host behind the firewall and can pause and resume retrieving or viewing documents or web pages without being disconnected and having to log back into the secured network.

Response to Arguments

20. Applicants' arguments filed on 22-June-2005 with respect to the rejected claims in view of the cited references have been fully considered but they are either moot in view of the new grounds for rejection, or they are not deemed persuasive, as follows:

The Applicants' arguments regarding the effective date of the pre-grant publication previously used in rejecting the claims have been fully considered. The Examiner respectfully disagrees with the Applicant's statement that, "as long as the Brownell et al application has not issued as a patent, its effective date is the date of publication", because the Examiner's qualification for this prior art was based on the 102(e) priority date. However, the Applicant's argument is now moot in view of the new grounds of rejection by the Examiner, using the "issued patent" of the same application to Brownell.

The Applicants argue that "the claims are not obvious in view of the cited references" and discusses Brownell, Crichton, and Malcolm references in view of the previous rejection. The Examiner's new grounds of rejection presented in this Office Action no longer relies on the Malcolm as a reference and uses Crichton in a limited way to reject some of the dependent claim limitations.

The Applicants state that, "amended claim 1 specifies a firewall that has an IP address. In contradiction, the firewall of Brownell is not described to have an IP address." The Examiner respectfully disagrees with the Applicant's remarks on Brownell. The Examiner directs the Applicant's attention to Brownell, column 7, lines 61-63, where Brownell states, "Firewall 330, host 310, host 312, host 314, host 316, and external host 350 are each associated with a network address, such as an Internet Protocol ("IP") address".

The Applicants further argue that, “according to amended claim 1, a connection request is received by a first proxy, and NOT by the firewall. In contradiction, in the Brownell reference (a) there is no proxy, and (b) the connection request from an outside-the-firewall host is received by the firewall itself.” The Examiner respectfully disagrees with the Applicants’ remarks made above. Brownell teaches “proxies” in “socket factory” and “sockets” which receive the user’s request for a connection and forward it to the firewall (figure 3, “socket” 361 receives the “user” 360 request and passes it to the “firewall” 330 on “port” 443. Therefore, it is established that not only does Brownell teach a user-side proxy, he also teaches the connection request being made by the user (“socket 361”) through the “login channel” 342.

The Applicants further argue that, “according to amended claim 1, the message that is received is received by the first proxy that has an IP address that is different from the IP address of the firewall. In contradiction, in the Brownell reference there is no notion of a separate IP address of a proxy.” Again, the Examiner respectfully disagrees. The concept of different IP addresses was discussed above in establishing that each of the entities, including the firewall, are associated with a network address, in view of the Brownell and the reference made to column 7, lines 61-63.

The Applicants argue that, “according to claim 1 a second proxy is authenticating the user AND that second proxy also establishes a data connection ‘through said firewall, through which said first proxy can forward requests of said client to said second proxy.’ In

other words, a series connection is established that comprises a first proxy, the firewall, and a second proxy. The Brownell reference, in contradiction, teaches that other hosts on the inside of the firewall participate in the authentication process, but there is no second proxy described that performs the authentication process, and there is no series connection as specified in amended claim 1.” The above arguments are fully considered but are not deemed persuasive.

Firstly, Brownell teaches the “second proxy” in “Tunnel 341” (figure 3), which establishes a data connection to the “internal hosts” (references 310, 312 on figure 3). The instant application teaches a single proxy (depicted as Proxy 200 in figures 1 and 2) which features two “sockets” or “ports”, acting as, or serving as a first proxy and a second proxy, as shown in figure 1 with references 201 and 202. Similarly, the Brownell reference teaches “a first proxy” as “socket 361” connecting with the firewall at “port 443”, while “a second proxy” is shown as the “Tunnel 341” connecting the firewall to the “external hosts”.

Secondly, “a series connection is established that comprises a first proxy, the firewall, and a second proxy” is not recited in the rejected claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Nonetheless, Brownell clearly teaches this connection, as depicted in figure 3 (“external hosts” 310, 312), connected to the “firewall” 330 through “Tunnel” 341, or via the “inside channel” 343, which are connected on the other side of “firewall” 330 to “external host” 350 and “user” 360” via “pre-auth Channel” 340 as well as “login channel” 342, which are connected to the user via “sockets” 367 and 361.

The Applicants' arguments made in view of the Crichton reference previously used to teach the "second proxy" are moot in view of the Examiner's reliance on Brownell for the teachings of both proxies.

Applicants' arguments made regarding claims 4 and 16 and also claims 11-13 in view of the previous prior art references are moot in view of the Examiner's new grounds of rejection for these claims.

Conclusion

21. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (571) 272-4078. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin, can be reached at (571) 272-4146.



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